

ELECTRICITY GUIDE

Maine Public Advocate Office

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“Prices for Electric Supply Went Up in March ... But The Sky is Definitely Not Falling”

Stephen G. Ward, Public Advocate

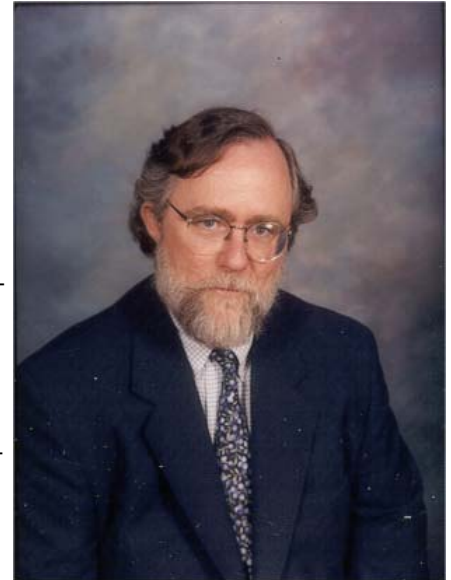
Why do I tell people that Maine actually isn't doing poorly with restructured electricity markets, even with a 2¢ per kilowatt-hour increase in March for Bangor Hydro and CMP's supply prices? Those increases have pushed CMP's total rate for delivery and supply to 13.4¢ and Bangor Hydro's total rate to 15.5¢ per kWh. Surely, that isn't good news. It's not good news but

...Here are some reasons why I for one don't think the sky is falling. First, the rising tide of high oil and natural gas prices that is behind the Standard Offer increases in March has affected virtually all utility customers in the Northeast since electric supply has been restructured/deregulated, from Maine to the District of Columbia. Out of 17 utilities in the Northeast, Maine's utilities are doing well - ranking 17th for today's supply prices in the case of Maine Public Service and 13th in the case of CMP. Bangor Hydro ranks 9th but that still is behind much larger utilities in Baltimore, Connecticut and Boston whose Standard Offer prices are well above BHE's 7.1¢ price [See box on page 2].

At the same time that supply prices have gone up, delivery prices for CMP and Bangor Hydro continue to decline - in the case of BHE residential customers by more than 1.0¢/kWh in March. This is because we are paying off stranded costs at a rapid rate; the costs of pre-restructuring contract obligations have been reduced by 50%, going from \$2 billion in 1998 to about \$700 million today. Secondly the rate for actually delivering electricity has dropped for both CMP and Bangor Hydro since 2000 when restructuring began in Maine, going from approximately 9¢ to approximately 7¢. These decreases have offset the supply-side increases in the Standard Offer. [See box on page 3.]

Compared with heating oil and gasoline, electricity has actually been very stable: since 1999 CMP and Bangor Hydro's total rates (supply, stranded cost and delivery) have only increased by 2.3% and 13.1% respectively; over the same six years heating oil prices have jumped 156% and gasoline has jumped fully 174%. There is reason to believe that we would have seen some substantial portion of those fossil-related increases reflected in electric rates if Maine's utilities had never been restructured. After all, the major feature of traditional rate regulation was the notorious Fuel Adjustment Clause that permitted electric utilities to pass 100% of fuel-related increases on to customers.

Here's some more good news: nearly 2000 residential customers in Maine have signed up for the 100% renewable alternative to the Standard Offer that is offered by Interfaith Light and Power/Maine Renewable Energy. These customers have benefited from the right to choose their electricity supplier. Much larger shares of industrial load (at 90% or more) and large commercial load (at 40% or more) are



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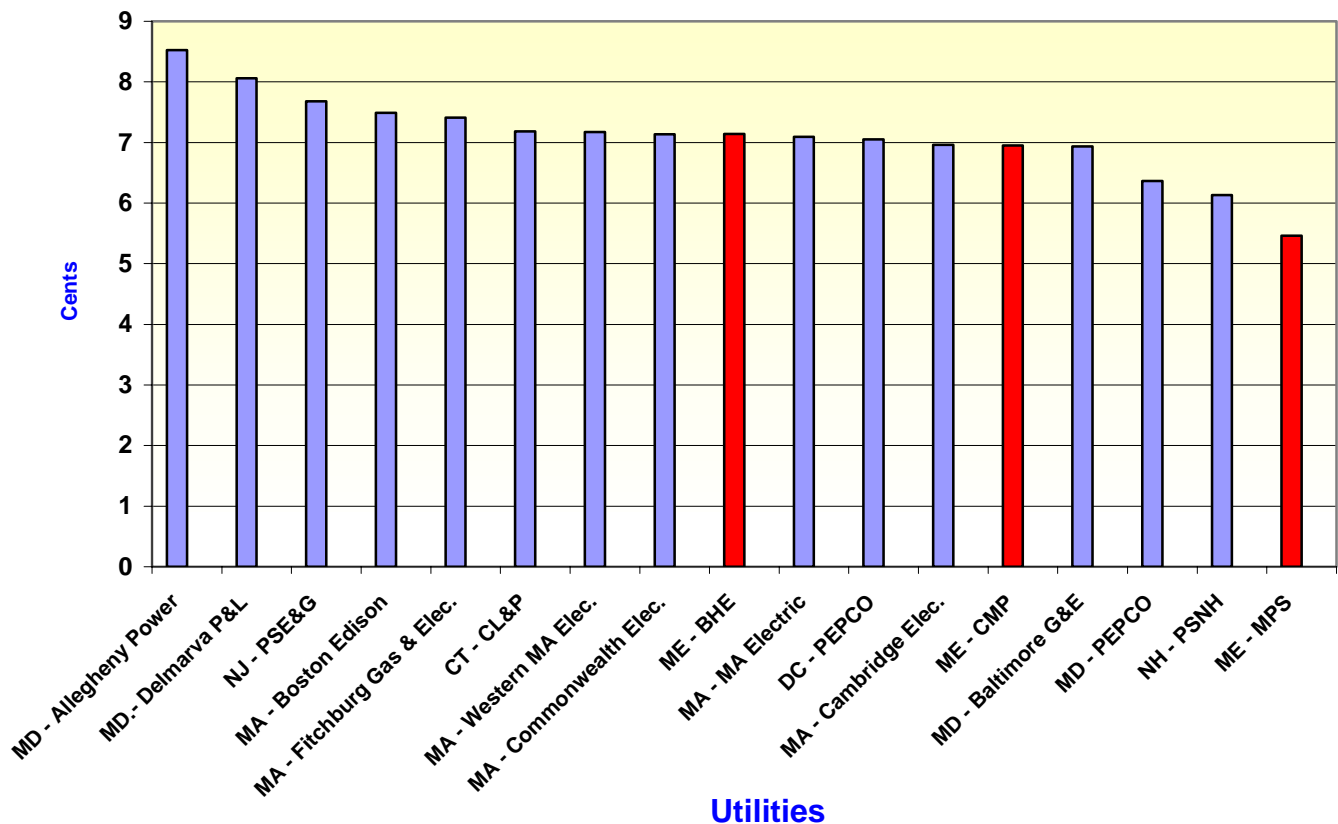
(continued from page 1) now served by competing suppliers than is the case for residential load - but these things take time. Consider the break-up of AT&T's telephone monopoly in 1984: it took fully 15 years before there was much local competition for the Baby Bells, even in major markets. It really doesn't make sense to expect that a vibrant retail market would be in place in Maine (or elsewhere in the Northeast) only five years after the start-up of restructuring in March 2000. It takes a while for markets to mature and, with a fifth birthday, Maine's market for retail electricity is still a youngster.

The last positive development to note concerns energy conservation. Prior to restructuring in 2000, energy conservation programs were managed by Maine's utilities -- with considerable reluctance in many cases since lowering sales of electricity also lowered shareholder earnings. Now the T&D utilities are entirely out of the energy conservation business, due to thoughtful action by the Maine Legislature.

Efficiency Maine (a division of the PUC) now delivers efficiency measures across the State in a series of programs targeted at small businesses, low-income residential customers and the local market for efficient lighting products and efficient appliances. Efficiency Maine is well-managed, small enough to be nimble in its marketing and a national model for state-of-the-art energy conservation measures. It seems to me quite likely that the T&D utilities would have continued to keep conservation in their backyard (and on the back burner) in the absence of Maine's comprehensive restructuring of the electric industry.

Is the glass half full or half empty? You get to decide. I continue to argue that the glass certainly is not entirely empty - there are a number of important success stories in Maine's experience with electric restructuring, so far.

HOW MAINE'S NEW STANDARD OFFER PRICE FOR RESIDENTIAL CUSTOMERS COMPARES TO OTHER STATES



Bangor Hydro's New Meters



In February, Bangor Hydro all but completed installing “smart meters” throughout its service territory, a process it began last July. When finished, each of its 113,000 residential customers, as well as its small commercial customers, will have one.

These high tech devices, known as AMR meters (for “automatic meter read”), allow the meter to be read without a visit to your home or business. It works as follows. Your old meter is removed and a new meter is inserted into the old framework. This device uses light to read the meter’s spinning disk continuously. Once per day, it sends the previous day’s information to the electric substation. From here, the information is relayed via specialized communications equipment to company headquarters.

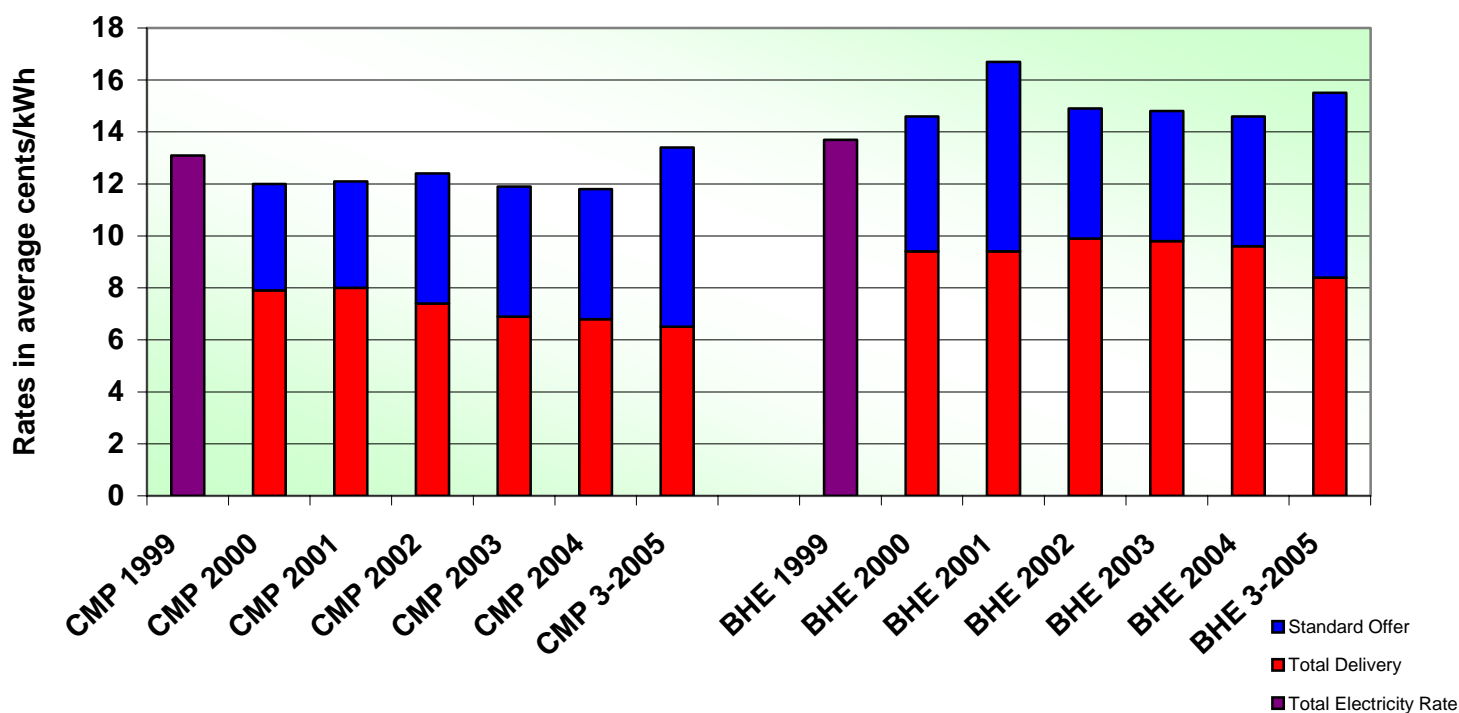
Bangor Hydro does not intend to change when or how it bills you for service. You should continue to receive your bill around the same time each month. In fact, apart from the brief loss of power when the meter is installed, this change should be invisible to you. However, the advanced features of this new system may allow you to change the date of your monthly billing cycle if you so desire.

With the installation of specialized software, these meters will eventually allow the Company to more quickly locate outages on its system. This should improve service restoration during storms. Rather than rely on the phone calls of customers and the drive-by inspections of its service personnel, outage coordinators can simply bring up the system on a computer screen and the information sent from these meters (or *not sent* in the case of an outage) will allow the program to display who has and who doesn’t have power.

The Company can also use these meters to tell you what your daily usage has been. Eventually, the Company plans to create a secure website where, with the use of a password, you will be able to log on and see your daily, or perhaps hourly, usage. This can help you to better understand how you use electricity so that you can take steps to use less and save money.

According to the PUC, there have been 14 complaints from Bangor customers about the installation or the operation of these new meters, most citing higher bills since the switch. We regard this as a remarkably low number considering that virtually every customer has been switched. The Company indicated that it tested every new meter before it was installed and that it is working to resolve these complaints.

Electric Rates - Residential Customers, 2000-2004



Surge Protection for Computers and Other Electronics

If you have a computer, you probably have a surge protector, also called a surge suppressor. If not, you are at risk of needing to buy a new computer and figuring out how to replace all the data currently stored on your existing one. The reason is that computers and other sophisticated electrical equipment are vulnerable to damage and even total destruction from fluctuations in the level of electricity that flows through the wires in your home or business. The following provides some guidance about choosing the right device to protect your computer and other electronics from power surges.

Causes A power surge is nothing more than a fluctuation in voltage. These fluctuations have a variety of causes, some within your house and others associated with the electric system operated by your delivery utility (CMP, Bangor Hydro, Maine Public, etc.) A fluctuation, if severe enough, can burn out your sensitive electronics instantly. Repeated minor fluctuations can also damage equipment.

The most dangerous source of a power surge is lightning. Though some manufacturers say their products can protect against the massive power surge that results from a nearby lightning strike, we strongly urge you simply to unplug your computer and other electronics if there is the threat of a thunderstorm.

More common sources of power surges are momentary trips on the power lines such as those caused by tree limbs touching the line or when the utility interrupts power for line repairs. Also, when your refrigerator, air conditioner or other large appliance turns on or off, the sudden shift in power usage within your house causes potentially damaging fluctuations. You may be entirely accustomed to seeing the lights dim when your warm air furnace fan comes on, for example, but your computer does not like it. For these types of surges, a quality surge protector is a worthwhile investment.

What to buy? Many types of protection devices are available on the market but they fall into three basic categories. A basic power strip, costing from \$5 - \$10 is little more than a multi-socket extension cord and provides little or no surge protection. A power strip surge protector,

costing between \$20 and \$50, is probably what you want. The way to be sure that you are getting what you pay for is to examine the box. Make sure it is a “transient voltage surge suppressor” or that it meets the Underwriters Laboratories (UL) criteria for “UL 1449,” the minimum standard for surge suppressors. Don’t confuse this with UL ratings of other devices, including simple extension cords. A more advanced device, costing close to \$100, is a full-blown surge station. These provide superior protection and often contain built-in circuit breakers. These devices may be a worthwhile investment for small businesses or owners of advanced computer equipment.

Links. For further information you may want to visit the following websites:

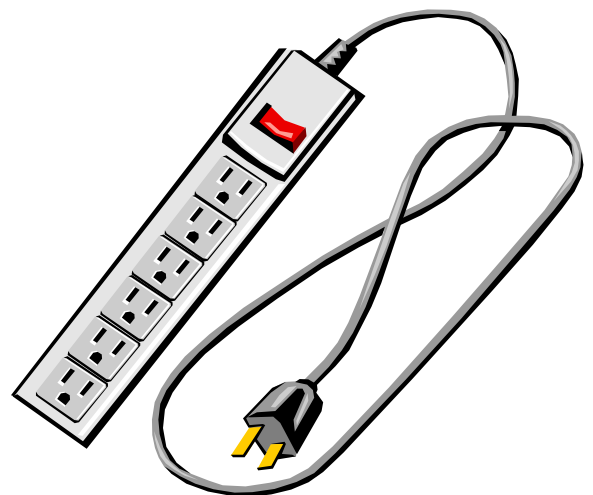
<http://www.aarp.org/learntech/computers/howto/Articles/a2003-03-13-surgeprotectors.html>

<http://computer.howstuffworks.com/surge-protector4.htm>

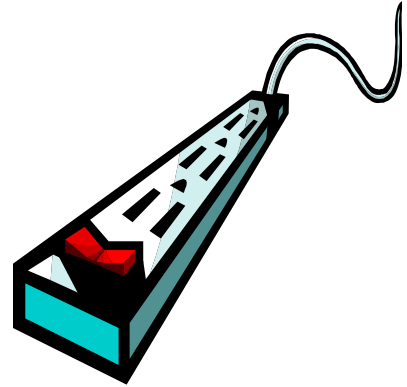
<http://kb.indiana.edu/data/aeoq.html?cust=291793.87907.30>

http://whatis.techtarget.com/definition/0,,sid9_gci213630,00.html

<http://doityourself.com/electric/surgeprotectors.htm>



(continued from page 4) Desirable specifications. To get adequate protection, you should look for the following. Clamping Voltage. Surge suppressors should operate at fairly low voltage levels. Look for a clamping voltage no higher than 400 V. Absorption/Dissipation. A suppressor is of little use if it cannot dissipate high levels of energy. Look for a device rated at 200-400 joules. 600 joules is even better. Response Time. Since no surge protector can act at the same exact moment that the surge begins, be aware of the response time of the device. Choose one with a response time of less than one nano-second. Indicator Light. Surge protectors are sometimes destroyed in the act of doing their job. Make sure you get one with an indicator light that will not glow when the protection device no longer operates.



Many surge protectors offer protection (inputs and outputs) for telephone and cable lines. Since power surges associated with lightning and other external forces can travel over these lines and damage connected devices, such protection is well worth considering.



“Uninterruptible Power Supply” (UPS) To protect your computer against the loss of data that could result from a power failure, you should consider purchasing a UPS. UPS uses a battery to insure continuous electric supply if the lights go out. The battery power provides ample time for you to save information and turn off the computer. Because the power runs through the battery even when the lights are on, it also serves as a “line conditioner”, filtering out small voltage variations that can, over time, degrade your computer. Some UPS devices emit an intermittent beep when the lights fail. Make sure that the UPS contains its own surge protection, or be sure to install one between the wall socket and the UPS. UPS devices range in price from \$50 to over \$150.



Did You Know....

On the subject of energy efficiency, did you know that Bangor Hydro’s Standard Offer increase (approximately 2¢ per kWh) can be entirely eliminated for a typical residential customer merely by installing six compact fluorescent light bulbs in places that receive regular use? And CMP’s March increase in Standard Offer prices can effectively be cut in half for a typical residential customer, again by means of six compact fluorescent replacements. It’s an old and true story: the least expensive kilowatt-hour is the one that is never consumed.

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ABOUT THE PUBLIC ADVOCATE OFFICE

Stephen G. Ward, the Public Advocate, and his staff of seven represent Maine's telephone, electric, gas, and water customers before the Maine Public Utilities Commission, the courts, and federal agencies. Our mission is to work for reasonably priced, safe, and reliable utility services for Maine people.

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